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(54) CAPACITOR BASED FORCE SENSOR

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(57) **ABSTRACT**

The invention provides a novel capacitive device configured to detect differences in an applied force over a continuous range of applied force that includes zero force. The device includes first and second electrodes that are spaced apart a predetermined distance from each other in a rest position. A measurable capacitance exists between the first and second electrodes. Structured elements having a predetermined maximum dimension are positioned in the device to control the predetermined distance between the first and second electrodes. An applied force to the device causes a change in the distance between the first and second electrodes and a related change in the capacitance that can be measured to determine information related to the applied force.